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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,352	02/14/2001	Donald J. Lewis	200-1731	1057

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EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 08/12/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/783,352

Applicant(s)
Lewis

Examiner
Diem Tran

Art Unit
3748



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7 and 9-11 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

-This office action is in response to the amendment filed on 5/30/03. In this amendment, claims 5, 6, 9, 11 have been amended and claims 12, 13 have been canceled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Tengblad et al. (US Patent 5,867,982).

Regarding claim 5, Tengblad discloses a method of controlling an air-fuel ratio in an internal combustion engine, comprising the steps of:

determining a temperature of an emission control device downstream of the engine (see col. 8, lines 63-65), oxidizing hydrocarbon stored in said device when said temperature of said device is greater than a predetermined temperature (see col. 4, lines 59-67, col. 5, lines 1-6); and adjusting the air-fuel ratio in the engine rich of stoichiometry during oxidation of said hydrocarbons (see col. 9, lines 1-10).

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Regarding claim 6, Tengblad further discloses providing air from an air supply device to an exhaust stream upstream of said hydrocarbon trap (see Figure 1, col. 8, lines 1-5).

Regarding claim 7, Tengblad further discloses said air supply device is an air pump (see col. 7, lines 65-67, col. 8, lines 1-5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being anticipated by Tengblad et al. (US Patent 5,867,982) in view of art recognized equivalents.

Regarding claim 9, Tengblad discloses a system for controlling an air/fuel ratio in an internal combustion engine, comprising:

a hydrocarbon trap positioned in an exhaust path downstream of the engine (see col. 4, lines 59-67, col. 9, lines 46-49); an air supply (16) device capable of delivering air to said exhaust path upstream of said hydrocarbon for oxidizing hydrocarbons stored in said trap (see Figure 1);

a controller configured to induce said device to deliver said air to said trap when said temperature signal indicates a temperature of said trap is greater than a predetermined temperature (see col. 8, lines 63-67, col. 9, lines 1-10), said controller further configured to adjust

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the air-fuel ratio in the engine rich of stoichiometry during said air delivery (see col. 7, lines 40-67, col. 8, lines 1-5, lines 47+, col. 9, lines 1-10).

Tengblad discloses the claimed invention except for using a temperature sensor to determine a temperature of the trap. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the use of sensor for determining the temperature of a catalytic device in Tengblad, since the examiner takes Official Notice of the equivalence of “the use of sensor for determining the temperature of the trap” and “estimating the temperature of the trap based on the engine operation condition” for their use in the exhaust gas treatment art, and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

Regarding claim 10, Tengblad further discloses said air supply device is an air pump (see col. 7, lines 65-67, col. 8, lines 1-5).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. (US Patent 6,367,246) in view of legal precedent.

Hirota discloses a method for controlling an engine, said engine communicating with a first and second emission control device, said method comprising:

determining a temperature of said second emission control device (see col. 5, lines 53-67, col. 6, lines 1-6);

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oxygen upstream of said second emission control device, to oxidize hydrocarbons stored in said second emission control device and hydrocarbons from said combusted rich air -fuel mixture when said temperature of said second emission control device is greater than a predetermined temperature (see col. 5, lines 44+, col. 6, lines 1+, col. 8, lines 10+, col. 9, lines 60-67); however, fails to disclose a first and second emission control device being separated from each other. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use two emission control devices being separated from each other, since it has been held that interchanging an integral part, for plural parts involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Response to Arguments

Applicant's arguments filed 5/30/03 have been considered but they are not deemed-persuasive.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (703) 308-6073. The examiner can normally be reached on Monday -Friday from 8:00 a.m.-5:30p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 872-9302. For After Final communication, the fax number is (703) 872-9303.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 872-9301.

DT
August 7, 2003



Diem Tran
Patent Examiner
Art unit 3748


THOMAS DENION

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700